ABSTRACT OF THE DISCLOSURE

An impedance measurement system for measuring skin impedance in a small skin region includes an electrode unit having a plurality of current supply electrodes for supplying a constant current and a plurality of measurement electrodes separate from the current supply electrodes for measuring a response signal of skin, a current source for supplying the constant current to the current supply electrodes, a signal processing unit, connected to the measurement electrodes, for receiving response signals generated in the skin in response to the applied constant current, for generating a potential difference signal, for removing noise from the potential difference signal, and for amplifying the noise-removed potential difference signal, a signal conversion unit for converting the potential difference signal received from the signal processing unit from analog into digital format, and an image display unit for converting the digital potential difference signal into an image signal and for displaying the image signal.